

# COEUR D'ALENE NORTH KOA (PWS 1280024) SOURCE WATER ASSESSMENT REPORT

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April 26, 2001



## State of Idaho Department of Environmental Quality

**Disclaimer:** This publication has been developed as part of an informational service for the source water assessments of public water systems in Idaho and is based on data available at the time and the professional judgement of the staff. Although reasonable efforts have been made to present accurate information, no guarantees, including expressed or implied warranties of any kind, are made with respect to this publication by the State of Idaho or any of its agencies, employees, or agents, who also assume no legal responsibility for the accuracy of presentations, comments, or other information in this publication. The assessment is subject to modification if new data is produced.

Under the Federal Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. The Idaho Department of Environmental Quality is completing the assessments for all Idaho public drinking water systems. The assessment for your particular drinking water source is based on a land use inventory within a 1,000 foot radius of your drinking water source, sensitivity factors associated with the source and characteristics associated with either your aquifer or watershed in which you live.

This report, *Source Water Assessment for Coeur d'Alene North KOA (PWS 1280024)* located near Garwood, Idaho, describes the public drinking water system, the associated potential contaminant sources located within a 1,000' boundary around the drinking water source, and the susceptibility (risk) that may be associated with any documented potential contaminants. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this system. **The results should not be used as an absolute measure of risk and are not intended to undermine the confidence in your water system.**

The Coeur d'Alene North KOA drinking water system consists of one well. The well was drilled prior to 1978 and is 220' deep. It is fitted with a sanitary seal and had been maintained appropriately. Water samples have occasionally been positive for the presence of total coliform bacteria. The last positive sample was collected 4/12/00. Follow-up water samples were negative for the presence of total coliform bacteria indicating that the positive sample was likely due to sampling error. Testing for the presence of nitrates in the system's drinking water has revealed nitrate levels to be well below the maximum contaminant level.

The well was assigned a high system construction score mainly due to the lack of a well driller's report that would provide information about specific construction characteristics of the well. The well is located outside of the 100-year flood plain, but is not protected from surface runoff. The well casing extends only 6" above the ground's surface and is vented through electrical conduit that is not watertight.

The well's hydrologic sensitivity is moderate. Again, this reflects a general lack of information in the form of a well driller's report. The well is located in an area with poorly drained to moderately well drained soil, which provides some protection from contaminants moving through the soil.

There is one documented potential contaminant site located within the well's source water assessment area. This is a storage shed located 120' west of the well. Mike Nelson identified this site during a 1999 GWUDI (groundwater under the direct influence of surface water) determination survey. The well is not under the influence of surface water. The well's potential contaminant/land use scores are low.

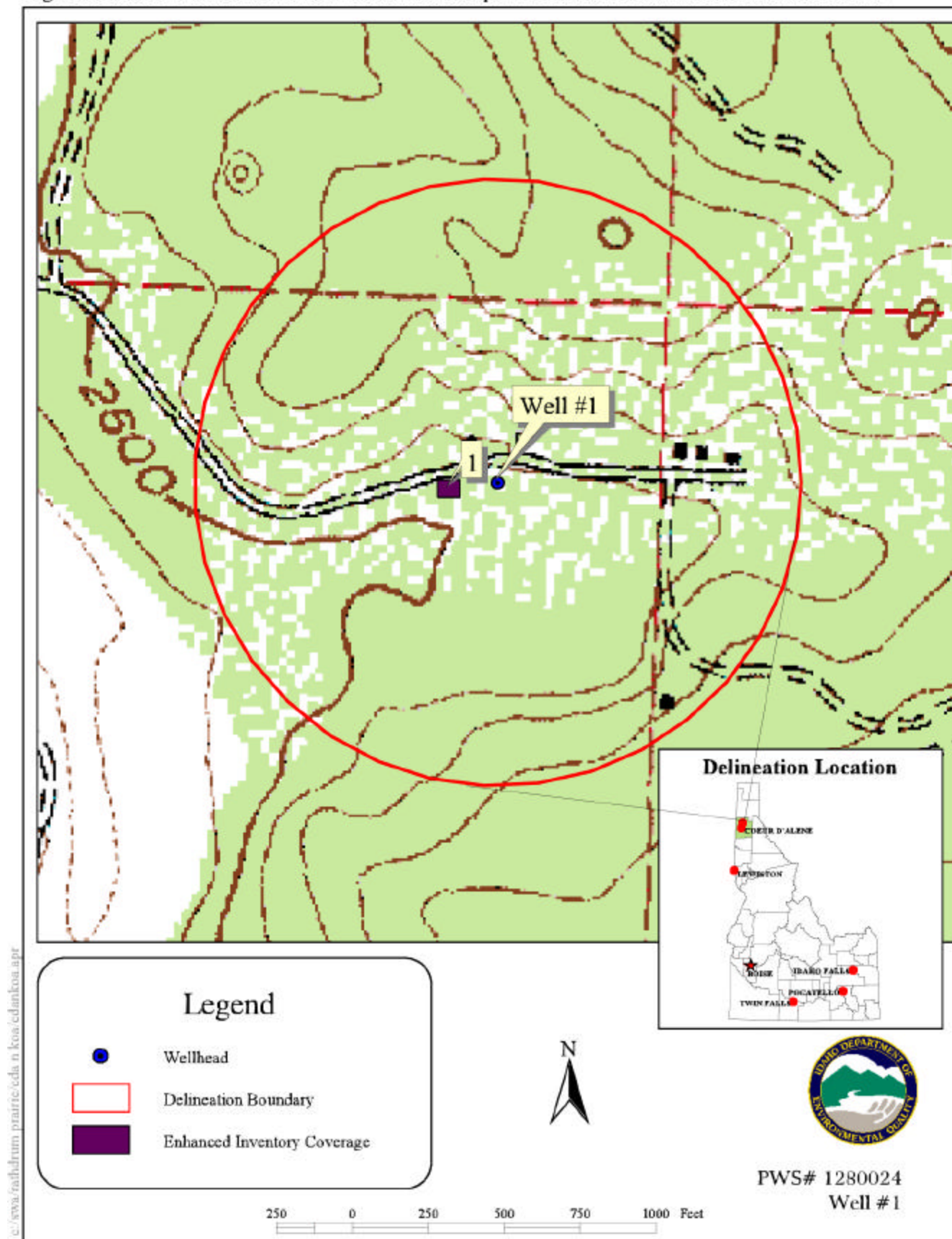
The well's overall susceptibility to contamination has been determined to be moderate. A copy of the susceptibility analysis for your system along with a map showing any potential contaminant sources is included with this summary. Information regarding the potential contaminants within the 1,000' boundary have been summarized and included in Table 1.

Table 1.

SITE #	Source Description	Source of Information	Potential Contaminants
1	Storage Shed	Enhanced Inventory	VOC, SOC, IOC

*IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical*

Figure 1. Coeur d'Alene North KOA Delineation Map and Potential Contaminant Source Locations



This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Coeur d’Alene North KOA should focus source water protection activities on implementation of practices aimed at maintaining the current quality of their drinking water. This should include making improvements to the system as requested by Mike Nelson of Panhandle Health District 1 during the well’s 1996 sanitary survey. The water system operator should consider developing a source water protection plan that includes, at a minimum, a contingency component outlining the steps to be taken in the event that the well becomes temporarily or permanently contaminated. The contingency plan should list contact information and identify an alternative source of drinking water. Coeur d’Alene North KOA’s source water protection plan might also include a public education component to notify campground users of the presence of a drinking water well in the area and suggest methods for the proper use and disposal of chemicals within the well’s source water assessment area. Septic tank owners located within the well’s source water assessment area should also be contacted with instructions outlining septic tank maintenance procedures to decrease the possibility of bacterial contamination of the well. IDEQ as well as Panhandle Health District 1 can provide these guidelines. Source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

For assistance in developing source water protection strategies please contact Tony Davis at the Coeur d’Alene regional IDEQ office at (208)769-1422.

DEQ website :

<http://www.deq.state.id.us>

# **Attachment A**

## **Coeur d'Alene North KOA Susceptibility Analysis Worksheets**

The final scores for the **Coeur d'Alene North KOA** susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.27)
- 2) 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.375)

Ground Water Final Susceptibility Scoring

0-5 = Low Susceptibility

6-12 = Moderate Susceptibility

> 13 = High Susceptibility

1. System Construction		SCORE			
Drill Date	1978 or prior				
Driller Log Available	NO				
Sanitary Survey (if yes, indicate date of last survey)	YES	1996			
Well meets IDWR construction standards	N/A	1			
Wellhead and surface seal maintained	YES	0			
Casing and annular seal extend to low permeability unit	N/A	2			
Highest production 100 feet below static water level	UNKNOWN	1			
Well located outside the 100 year flood plain and protected from surface runoff	NO	1			
Total System Construction Score		5			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	UNKNOWN	1			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	UNKNOWN	2			
Total Hydrologic Score		4			
3. Potential Contaminant / Land Use - ZONE 1A		IOC Score	VOC Score	SOC Score	Microbial Score
Land Use Zone 1A	OTHER	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	NO	NO	NO	NO	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		0	0	0	0
Potential Contaminant / Land Use - ZONE 1B					
Contaminant sources present (Number of Sources)	YES	1	1	1	0
(Score = # Sources X 2 ) 8 Points Maximum		2	2	2	0
Sources of Class II or III leachable contaminants or	YES	1	1	1	
4 Points Maximum		1	1	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B Less Than 25% Agricultural Land		0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		3	3	3	0
Cumulative Potential Contaminant / Land Use Score		3	3	3	0
4. Final Susceptibility Source Score		10	10	10	9
5. Final Well Ranking		Moderate	Moderate	Moderate	Moderate



# Potential Contaminant Inventory

## List of Acronyms and Definitions

**AST (Aboveground Storage Tanks)** – Sites with aboveground storage tanks.

**Business Mailing List** – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

**CERCLIS** – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as **ASuperfund®** is designed to clean up hazardous waste sites that are on the national priority list (NPL).

**Cyanide Site** – DEQ permitted and known historical sites/facilities using cyanide.

**Dairy** – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

**Deep Injection Well** – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

**Enhanced Inventory** – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

**Floodplain** – This is a coverage of the 100year floodplains.

**Group 1 Sites** – These are sites that show elevated levels of contaminants and are not within the priority one areas.

**Inorganic Priority Area** – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

**Landfill** – Areas of open and closed municipal and non-municipal landfills.

**LUST (Leaking Underground Storage Tank)** – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

**Mines and Quarries** – Mines and quarries permitted through the Idaho Department of Lands.)

**Nitrate Priority Area** – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

**NPDES (National Pollutant Discharge Elimination System)** – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

**Organic Priority Areas** – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

**Recharge Point** – This includes active, proposed, and possible recharge sites on the Snake River Plain.

**RICRIS** – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

**SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities)** – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

**Toxic Release Inventory (TRI)** – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

**UST (Underground Storage Tank)** – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

**Wastewater Land Applications Sites** – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

**Wellheads** – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

**NOTE:** Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.